

### Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An HCV vaccine comprising a polynucleotide that encodes ~~the polypeptide sequences of the HCV proteins selected from the group consisting of: [[core]]Core, NS3, NS4B and NS5B, for use in medicine, wherein the polynucleotide encodes no other HCV protein.~~
2. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 1, wherein the polynucleotide encodes a [[core]]Core protein which is truncated from the carboxy terminal end ~~in a sufficient amount~~ to reduce the inhibitory effect of Core protein upon the expression of other HCV proteins.
3. (Currently Amended) [[An]]The HCV vaccine as claimed in 3, wherein the truncated [[core]]Core protein has a deletion of at least the C-terminal 10 amino acids.
4. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 3, wherein the truncated [[core]]Core protein consists of sequence encoding the Core 1-151 sequence amino acids 1-151 of the Core protein.
5. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 3, wherein the truncated core protein consists of sequence encoding the Core 1-165 sequence amino acids 1-165 of the Core protein.
6. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 1, wherein the HCV ~~protein~~protein ~~encoding sequence is~~ present in the form of a fusion protein containing at least one or more of sequence encoding the HCV proteins.
7. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 6, wherein the fusion protein is a double fusion consisting of the polypeptide sequences [[of ]]]NS4B and NS5B.

8. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 6, wherein the fusion protein is a double fusion consisting of the polypeptide sequences[[ of]] NS3 and Core.

9. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 1, wherein the HCV proteins are encoded by the polynucleotide in more than at least one expression cassette

10. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 9, wherein [[the]]a second expression cassette encoding the Core protein is in a cis location downstream of [[the]]a first expression cassette which encodes at least ~~one~~of the one other HCV ~~protein~~protein.

11. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 10, wherein the second expression cassette encoding the Core protein is downstream of [[an]]a first expression cassette ~~which~~that encodes [[the ]]NS5B protein.

12. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 1, wherein at least one of the HCV proteins present are inactivated by mutation.

13. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 12, wherein the polynucleotide encodes a NS5B protein that comprises a mutation in motif A.

14. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 12, wherein the polynucleotide encodes a NS3 protein, wherein the NS3 protein protease activity has been abrogated by mutation in ~~any of the~~at least one catalytic triad amino acidsacid.

15. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 12, wherein the polynucleotide encodes a NS3 protein, wherein the NS3 protein helicase activity has been abrogated by mutation in ~~one or more of the~~at least one helicase motifs I, II, III or IVmotif selected from the group of: motif I, II, III, and IV.

16. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 12, wherein the polynucleotide encodes a truncated NS4B protein comprising a truncation to remove the without a highly variable N-terminal region.

17-18. (Cancelled)

19. (Currently Amended) [[An]]The HCV vaccine as claimed in claim 18, wherein the DNA sequence is in the form of a plasmid.

20. (Currently Amended) [[A]]The vaccine as claimed in any one of claims 1 to 17, claim 1, wherein the oligonucleotides are polynucleotide is codon optimised for expression in mammalian cells.

21. (Currently Amended) A method of preventing or treating an HCV infection in a mammal comprising administering a vaccine as claimed in any one of claims 1 to 17, claim 1 to a mammal.

22. (Currently Amended) A method of vaccination or vaccinating an individual comprising taking a polynucleotide vaccine as claimed in any one of claims 1 to 17, claim 1, coating the polynucleotide onto gold beads with the polynucleotide vaccine and delivering the gold beads into the skin.

23. (Cancelled)